

Wireline and Subsurface Tracer Studies



Introductions

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New Regulations

28-35-342. Uranium sinker bars

Any licensee may use a uranium sinker bar in well-logging applications only if the sinker bar is legibly impressed with these words: “CAUTION RADIOACTIVE -- DEPLETED URANIUM” and “NOTIFY CIVIL AUTHORITIES [or COMPANY NAME] IF FOUND.”



New Regulations

28-35-342. Energy compensation source

Any licensee may use either an energy compensation source (ECS) contained within a logging tool or other tool components, if the ECS contains quantities of licensed material not exceeding 3.7 Mbq (100 microcuries).



New Regulations

28-35-342 Use of sealed source in a well without a surface casing.

Any licensee may use a sealed source in a well without a surface casing for protecting freshwater aquifers if the licensee follows a procedure for reducing the probability that the source will become lodged in the well. This procedure shall be required to be approved by the U.S. nuclear regulatory commission or by an agreement state before the licensee uses the procedure.



New Regulations

28-35-343 Storage Precautions

Each licensee shall lock and physically secure the transport package containing licensed material in the transporting vehicle to prevent accidental loss, tampering, or unauthorized removal of the licensed material from the vehicle.



Increased Controls for Licensees that Possess Sources Containing Radioactive Material Quantities of Concern.



Increased Control 1

In order to ensure the safe handling, use, and control of licensed material in use and in storage each licensee shall control access at all times to radioactive material quantities of concern and devices containing such radioactive material (devices), and limit access to such radioactive material and devices to only approved individuals who require access to perform their duties.



Increased Control 2

In order to ensure the safe handling, use, and control of licensed material in use and in storage, each licensee shall have a documented program to monitor and immediately detect, assess, and respond to unauthorized access to radioactive material quantities of concern and devices. Enhanced monitoring shall be provided during periods of source delivery or shipment, where the delivery or shipment exceeds 100 times the Table 1 values.



Increased Control 3

In order to ensure the safe handling, use, and control of licensed material in transportation for domestic highway and rail shipments by a carrier other than the licensee, for quantities that equal or exceed those in Table 1 but are less than 100 times Table 1 quantities, per consignment, the licensee shall:



Increased Control 3

Use carriers which:

- A. Use package tracking systems,
- B. Implement methods to assure trustworthiness and reliability of drivers,
- C. Maintain constant control and/or surveillance during transit, and
- D. Have the capability for immediate communication to summon appropriate response or assistance.



Increased Control 3

Contact and coordinate the expected arrival time of the shipment and confirm receipt of the shipment; and
initiate an investigation to determine the location of the licensed material if the shipment does not arrive on or about the expected arrival time.



Increased Control 4

In order to ensure the safe handling, use, and control of licensed material in use and in storage each licensee that possesses mobile or portable devices containing radioactive material in quantities greater than or equal to Table 1 values, shall:



Increased Control 4a

For portable devices

have two independent physical controls that form tangible barriers to secure the material from unauthorized removal when the device is not under direct control and constant surveillance by the licensee.



Increased Control 4b

For mobile devices

that are only moved outside of the facility (e.g., on a trailer), have two independent physical controls that form tangible barriers to secure the material from unauthorized removal when the device is not under direct control and constant surveillance by the licensee.



Increased Control 4c

For devices in or on a vehicle or trailer

licensees shall also utilize a method to disable the vehicle or trailer when not under direct control and constant surveillance by the licensee



Increased Control 5

The licensee shall retain documentation required by these increased controls for three years after they are no longer effective



Increased Control 6

Detailed information generated by the licensee that describes the physical protection of radioactive material quantities of concern, is sensitive information and shall be protected from unauthorized disclosure.



Notification

Whenever a sealed source or device containing radioactive material is lodged downhole, the licensee shall:

- (1) monitor at the surface for the presence of radioactive contamination with a radiation survey instrument or logging tool during logging tool recovery operations; and



Notification

(2) notify the department immediately by telephone and subsequently, within 30 days, by confirmatory written report if the licensee knows or has reason to believe that a sealed source has been ruptured. This written report shall identify the well or other location, describe the magnitude and extent of the escape of radioactive material, assess the consequences of the rupture, and explain efforts planned or being taken to mitigate these consequences.



Emergency Contact Numbers

NORMAL WORK DAYS:

(8:00 a.m. to 5:00 p.m.)

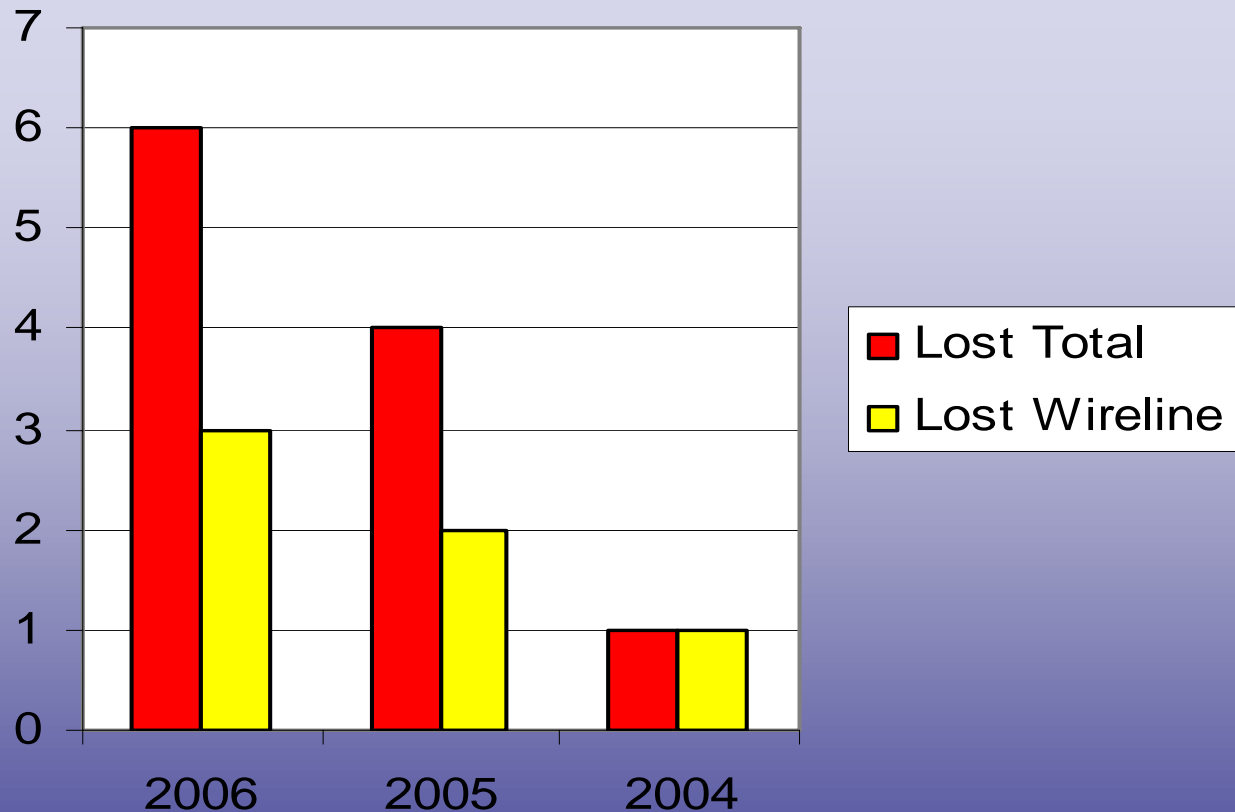
(785) 296-1560

OFF-DUTY HOURS:

(785) 296-8013



Reported Lost Sources



Abandonment

If it becomes apparent that efforts to recover the radioactive source will not be successful, the licensee shall comply with the following requirements,

- (1) The licensee shall advise the well-operator of the following requirements regarding the method of abandonment:
 - (A) The well-operator shall immobilize and seal the radioactive source in place with a cement plug.
 - (B) The well-operator shall set in place a whipstock or other deflection device.
 - (C) The well-operator shall mount a permanent identification plaque at the surface of the well, containing the appropriate information required by this regulation.



Abandonment

- (2) The licensee shall notify the department by telephone, giving the circumstances of the loss, and request approval of the proposed abandonment procedures.
- (3) The licensee shall file a written report with the department within 30 days of the abandonment, setting forth the following information:



Written Report

- (A) The date of occurrence and a brief description of attempts to recover the source;
- (B) A description of the radioactive source involved, including the radionuclide, quantity, and chemical and physical form;
- (C) A description of the surface location and identification of well;
- (D) The results of efforts to immobilize and set the source in place;



Written Report

- (E) the depth of the radioactive source;
- (F) the depth of the top of the cement plug;
- (G) the depth of the well; and
- (H) the information contained on the permanent identification plaque.



Plaque Requirements

- d) Whenever a sealed source containing radioactive material is abandoned downhole, the licensee shall provide a permanent plaque as described in K.A.R. 28-35-364 for posting on the well or well-bore. The plaque shall:
- (1) be constructed of long-lasting material, which may include stainless steel or monel; and
 - (2) contain the following information engraved on its face:



Plaque Requirements

- (A) the word "CAUTION";
- (B) the radiation symbol, without the conventional color requirement;
- (C) the date of abandonment;
- (D) the name of the well operator or well owner;
- (E) the well name and well identification number or numbers or other designation;
- (F) a description of the sealed source or sources, by radionuclide and quantity of activity;
- (G) the source depth and the depth to the top of the plug;
and



Plaque Requirements

(H) an appropriate warning which, depending on the specific circumstances of that abandonment, shall include:

- (i) "Do not drill below plug back depth";
- (ii) "do not enlarge casing"; or
- (iii) "do not reenter the hole before contacting the Kansas Department of Health and Environment Radiation Control Program;" and

(2) be a minimum of seven inches square. The word caution shall be written in 1/2-inch letters and all other information shall be written in 1/4-inch letters.



HIGH BLUFF OPERATING LLC
DENVER, COLORADO

CAUTHERS #3
API NO. 15-025-21292

CLARK COUNTY, KANSAS
SECT 14 TWP 34S RGE 25W

 **CAUTION** 

NEUTRON SOURCE DENSITY PAD
LOCATED AT 5856 FT
PLUGBACK DEPTH 5710'

DO NOT DEEPEN THIS WELL BEFORE CONTACTING
KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

03/13/2006 14:49

Questions ???

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